Defense Industry Business Management

Presented by:

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Discussion Topics

- Government—Industry Relationship
- Defense Industry Consolidation
- Defense Industry Profitability
- New DOD Focus on Profit
- New DOD Emphasis on Cash Flow
- Senior DOD Management Concerns

PM'S CHALLENGE
STRIKING THE RIGHT BALANCE

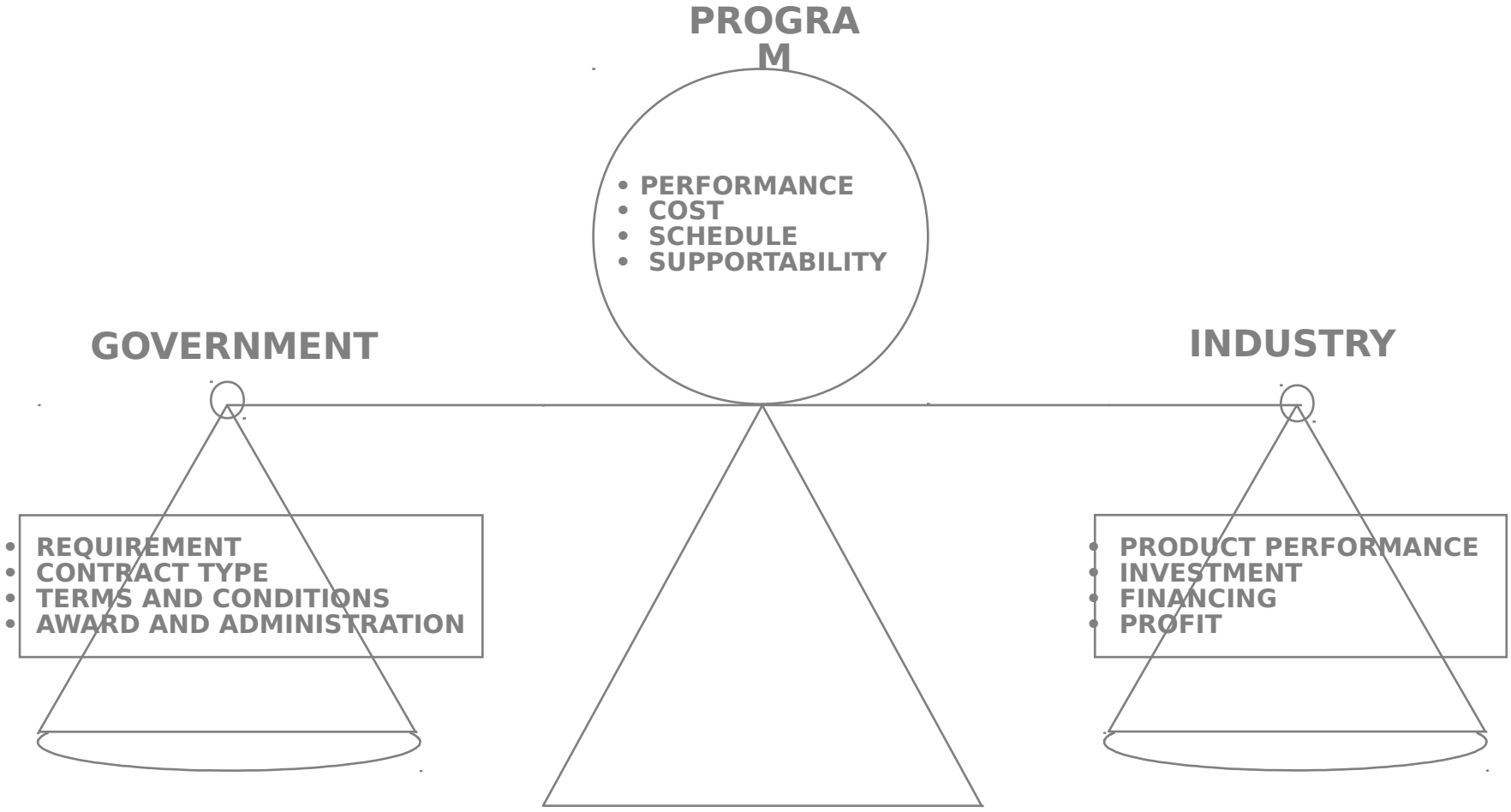
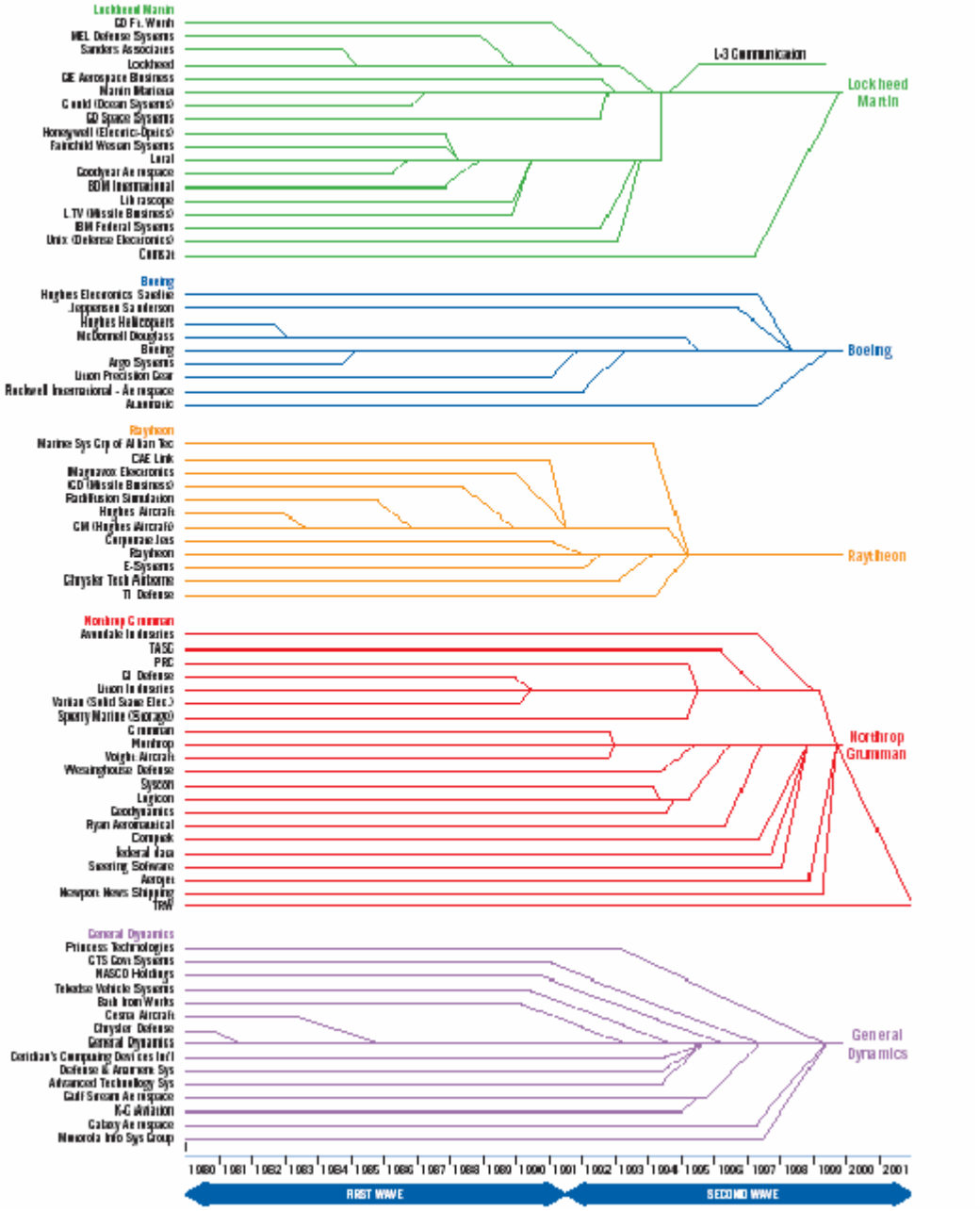


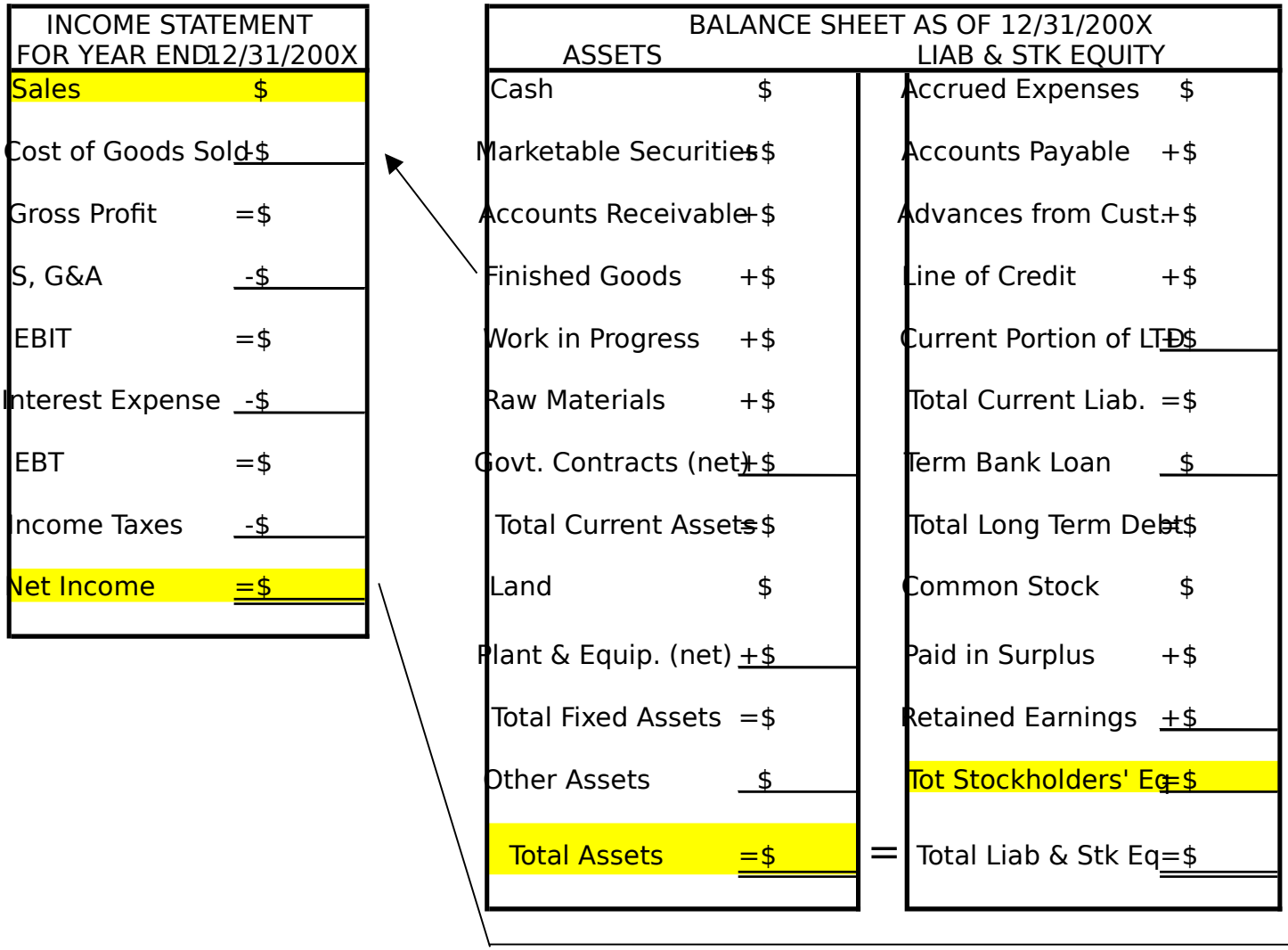
Figure 7-4 20 Years of Industry Consolidation



Recent Acquisition Activity “Bolt On”

- Lockheed Martin
  - Titan $2.4B (Just Cancelled)
- General Dynamics
  - Veridian $1.5B
  - Alvis $561M (BAE Countered)
- General Electric
  - Invision $900M
- CACI
  - AMS Defense $400M

Industry Profitability Ratios - How profitable is a company relative to sales, total assets, and stockholder's equity?



Return on Sales:

$$\frac{\text{Net Income}}{\text{Sales}}$$

Return on Assets:

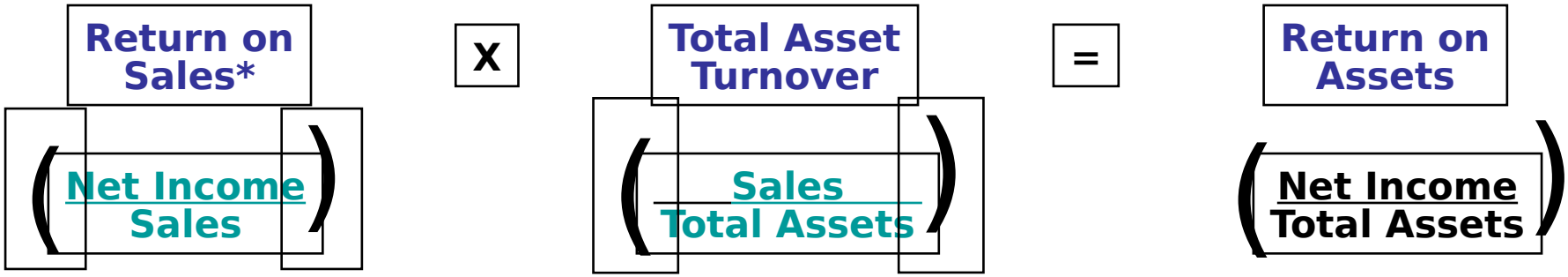
$$\frac{\text{Net Income}}{\text{Total Assets}}$$

Return on Equity:

$$\frac{\text{Net Income}}{\text{Stockholder's Equity}}$$

Interrelationship of Profitability Measures

Dupont Formula



*Return on Sales is also called Net Profit Margin

Extended Dupont Formula

** This financial leverage ratio is sometimes called the equity multiplier

	Aerospace/Defense Industry					All Manufacturing Corporations				
	Profit Margin (NI/S)	Asset Turnover (S/TA)	Return on Assets (NI/TA)	Financial Leverage (TA/SE)	Return on Equity (NI/SE)	Profit Margin (NI/S)	Asset Turnover (S/TA)	Return on Assets (NI/TA)	Financial Leverage (TA/SE)	Return on Equity (NI/SE)
1971	1.8	1.11	2.0	2.90	5.8	4.1	1.24	5.1	1.90	9.7
1972	2.4	1.13	2.7	3.19	8.6	4.4	1.25	5.5	2.02	11.1
1973	2.9	0.83	2.4	4.29	10.3	4.7	1.38	6.5	1.97	12.8
1974	2.9	1.28	3.7	2.81	10.4	5.5	1.46	8.0	1.86	14.9
1975	3.0	1.27	3.8	2.90	11.1	4.6	1.35	6.2	1.87	11.6
1976	3.4	1.34	4.7	2.72	12.8	5.4	1.42	7.5	1.87	14.0
1977	4.2	1.36	5.7	2.61	14.9	5.3	1.43	7.6	1.87	14.2
1978	4.4	1.23	5.5	2.89	15.7	5.4	1.44	7.8	1.92	15.0
1979	5.0	1.26	6.3	2.92	18.4	5.7	1.47	8.4	1.94	16.5
1980	4.3	1.21	5.2	3.08	16.0	4.8	1.44	6.9	2.00	13.9
1981	4.4	1.18	5.2	3.06	16.0	4.7	1.43	6.7	2.03	13.6
1982	3.3	1.12	3.7	3.24	12.0	3.5	1.26	4.5	2.09	9.2
1983	3.5	1.17	4.1	2.98	12.1	4.1	1.27	5.1	2.04	10.5
1984	4.1	1.15	4.7	3.00	14.1	4.6	1.26	6.0	2.12	12.5
1985	3.1	1.13	3.6	3.17	11.1	3.8	1.21	4.6	2.20	10.1
1986	2.8	1.07	3.1	3.13	9.4	3.7	1.14	4.2	2.26	9.5
1987	4.1	1.07	4.4	3.32	14.6	4.9	1.14	5.6	2.29	12.8
1988	4.3	1.02	4.4	3.39	14.9	6.0	1.15	6.9	2.35	16.2
1989	3.3	1.00	3.3	3.24	10.7	5.0	1.12	5.6	2.45	13.7
1990	3.4	1.00	3.4	3.38	11.5	4.0	1.08	4.3	2.49	10.7
1991	1.8	1.06	1.9	3.21	6.1	2.5	1.04	2.6	2.46	6.4
1992	-1.4	0.86	-1.2	4.33	-5.2	1.0	1.00	1.0	2.60	2.6
1993	3.6	0.97	3.5	3.80	13.2	2.8	1.04	2.9	2.80	8.1
1994	4.7	0.92	4.3	3.44	14.8	5.4	1.07	5.8	2.69	15.6
1995	3.8	0.92	3.5	3.17	11.1	5.7	1.09	6.2	2.63	16.2
1996	5.6	0.91	5.1	3.35	17.1	6.0	1.08	6.5	2.59	16.8
1997	5.2	0.92	4.8	3.60	17.3	6.2	1.06	6.6	2.52	16.6
1998	5.0	0.96	4.8	3.73	18.0	6.0	1.02	6.1	2.57	15.7
1999	6.5	0.95	6.2	3.52	21.8	6.2	0.98	6.1	2.70	16.5
2000	4.7	0.91	4.3	3.30	14.2	6.1	0.97	5.9	2.58	15.2
2001	3.9	0.92	3.6	3.22	11.6	0.8	1.00	0.8	2.38	1.90
2002	4.1	0.90	3.7	3.16	11.7	3.3	0.88	2.9	2.66	7.7
2003	3.1	0.84	2.6	3.81	9.9	5.1	0.88	4.5	2.69	12.1
Avg. 71-03	**3.7**	**1.1**	**3.9**	**3.3**	**12.5**	**4.6**	**1.2**	**5.5**	**2.3**	**12.2**

Source: Aerospace Industries Association

Government vs Industry View of Profit

Government Perspective	
Total Allowable Cost	$9,000,000
Profit/Fee @ 15%	$1,350,000
Price	$10,350,000

Defense Contractor Perspective	
Sales	$10,350,000
Total Allowable Cost	($9,000,000)
Unallowable Cost @ 3% of Sales	($310,500)
Earnings Before Taxes	$1,039,500
Income Taxes @ 35%	($363,825)
Net Income	$675,675
Return on Sales	6.53%

Shift in DOD Profit Focus

- Purpose is to reduce facilities investment as a factor in establishing profit objectives on negotiated contracts

- The goal is to reorient profit incentives from facilities investment to reward technical innovation and cost reduction efforts

Profit Limitations by Law

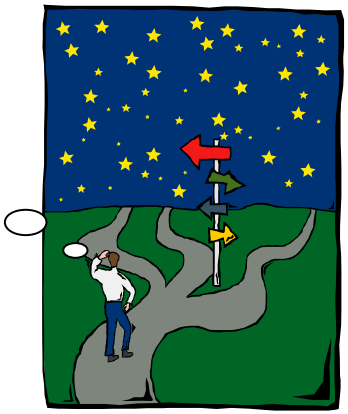
- Cost Plus Fixed Fee (CPFF) contracts
  - For R&D, limited to 15%
  - For other, limited to 10%
- All other types of contracts
  - Use a “structured approach” to determine the profit objective … hence, the Weighted Guidelines Methodology

DOD Negotiation Method

RECORD OF WEIGHTED GUIDELINES APPLICATION					REPORT CONTROL SYMBOL	
1. REPORT NO.	2. BASIC PROCUREMENT INSTRUMENT IDENTIFICATION NO.			3. SPIN	4. DATE OF ACTION	
	a. PURCHASING OF	b. FY	c.TYPE PROC INST CO	d. PRISN	a. YEAR	b. MONTH
					200	05

5. CONTRACTING OFFICE CODE		ITEM	COST CATEGORY	OBJECTIVE
6. NAME OF CONTRACTOR		13.	MATERIAL	$ 3,573,646
ABC Company		14.	SUBCONTRACTS	$ 5,044,940
7. DUNS NUMBER	8. FEDERAL SUPPLY CODE	15.	DIRECT LABOR	$ 39,573,972
		16.	INDIRECT EXPENSES	Included in DL
9. DOD CLAIMANT PROGRAM	10. CONTRACT TYPE CODE	17.	OTHER DIRECT CHARGES	$ 764,124
	J	18.	COST BASE *(13 thru 17)*	$ 48,956,682
11. TYPE EFFORT	12. USE CODE	19.	GENERAL AND ADMINISTRATIVE	$ 9,108,189
		20.	TOTAL COSTS *(18+19)*	$ 58,064,871

Where do I Get this info from?



Pre-negotiation objective

DoD Negotiation Method

The Performance Risk Factor is based on two criteria. Each criteria is assigned a weight with the result being the composite factor for Performance Risk

55% X 11% = 6.05%
45% X 5% = 2.25%
8.30%

Values selected from applicable profit range.

		WEIGHTED GUIDELINES PROFIT FA			
ITEM	CONTRACTOR RISK FACTORS	ASSIGNED WEIGHTING	ASSIGNED VALUE		
21.	TECHNICAL	55.00%	11.00%		
22.	MANAGEMENT/COST CONTROL	45.00%	5.00%		
23.	RESERVED				
24.	PERFORMANCE RISK (COMPOSITE)		8.30%	$ 58,064,871	$ 4,819,384
25.	CON		4%	$ 58,064,871	$ 2,322,595
		OSTS FINANCED	LENGTH FACTOR	INTEREST RATE	
26.	VOR	11,612,974	1.4	5.50%	$ 894,199
	CONTRACTOR FACILITIES CAPITAL EMPLOYED		ASSIGNED VALUE	AMOUNT	
27.	LAND			$0	
28.	BUILDINGS			$0	
29.	EQUIPMENT		22.50%	$ 7,066,527	$ 1,589,968
	COST EFFICIENCY FACTOR			BASE (ITEM 29)	
29A.	COST EFFICIENCY FACTOR		2.00%	$ 58,064,871	$ 1,161,297
30.				TOTAL PROFIT OBJECTIVE	$ 10,787,444

DoD Negotiation Method

WEIGHTED GUIDELINES PROFIT FACTORS					
ITEM	CONTRACTOR RISK FACTORS	ASSIGNED WEIGHTING	ASSIGNED VALUE	BASE (ITEM 20)	PROFIT OBJECTIVE
21.	TECHNICAL	55.00%	11.00%		
22.	MANAGEMENT/COST CONTROL	45.00%	5.00%		
23.	RESERVED				
24.	PERFORMANCE RISK (C		8.30%	$ 58,064,871	$ 4,819,384
25.	CONTRACT TYPE RISK		4%	$ 58,064,871	$ 2,322,595
26.	WORKING CAPITAL	COSTS FINANCED	LENGTH FACTOR	INTEREST RATE	
		$ 11,612,974	1.4	5.50%	$ 894,199
	CONTRACTOR FACILITIES CAPITAL EMPLOYED		ASSIGNED VALUE	AMOUNT	
27.	LAND			$0	
28.	BUILDINGS			$0	
29.	EQUIPMENT		%	$ 7,066,527	$ 1,589,968
	COST EFFICIENCY FACTOR			BASE (ITEM 20)	
29A.	COST EFFICIENCY FACTOR		%	$ 58,064,871	$ 1,161,297
30.				TOTAL PROFIT OBJECTIVE	$ 10,787,444

PROFIT RANGE VARIES BY CONTRACT TYPE

RECOGNIZES RISK ASSOCIATED WITH VARIOUS CONTRACT TYPES (FFP VS. CPFF ETC.)

DoD Negotiation Method

WEIGHTED GUIDELINES PROFIT FACTORS					
ITEM	CONTRACTOR RISK FACTORS	ASSIGNED WEIGHTING	ASSIGNED VALUE	BASE (ITEM 29)	PROFIT OBJECTIVE
21.	TECHNICAL	55.00%	11.00%		
22.	MANAGEMENT/COST CONTROL	45.00%	5.00%		
23.	RESERVED				
24.	PERFORMANCE RISK (COMPOSITE)		8.30%	$ 58,064,871	$ 4,819,384
25.	CONTRACT TYPE RISK		4%	$ 58,064,871	$ 2,322,595
26.	WORKING CAPITAL	COSTS FINANCED	LENGTH FACTOR	INTEREST RATE	
		$ 11,612,974	1.4	5.50%	$ 894,199
	CONTRACTOR FACILITIES CAPITAL EMPLOYED		ASSIGNED VALUE	AMOUNT	
27.	LAND			$0	
28.	BUILDINGS			$0	
29.	EQUIPMENT		22.50%	$ 7,068,527	$ 1,589,968
	COST OF MONEY FACTOR			(ITEM 29)	
29A.	COST OF MONEY		2.00%	$ 58,064,871	$ 1,161,297
30.				IVE	,444

RECOGNIZES CONTRACTOR FINANCING ON FIXED PRICE CONTRACTS.

Based on DFARS table

Current T-Rate

This calc. Is based on 20% financing under an 80% Progress Payment:

$58,064,871 x 20% = $11,612,974

DoD Negotiation Method

WEIGHTED GUIDELINES PROFIT FACTORS					
ITEM	CONTRACTOR RISK FACTORS	ASSIGNED WEIGHTING	ASSIGNED VALUE	BASE (ITEM 26)	PROFIT OBJECTIVE
21.	TECHNICAL	55.00%	11.00%		
22.	M		.00%		
23.	F				
24.	F		.30%	$ 58,064,871	$ 4,819,384
25.	C		4%	$ 58,064,871	$ 2,322,595
26.	V		H FACTOR 1.4	INTEREST RATE 5.50%	$ 894,199
			NED VALUE	AMOUNT	
27.	LAND			$0	
28.	BUILDINGS			$0	
29.	EQUI		22.50%	$ 7,066,527	$ 1,589,968
	C			BASE (ITEM 29)	
29A.	COS		2.00%	$ 58,064,871	$ 1,161,297
30.				TOTAL PROFIT OBJECTIVE	$ 10,787,444

The amount employed uses FCCOM dist. %'s found in the Contractor's proposal applied to the total capital investment. Total capital investment is calculated by dividing FCCOM by the T – Rate. Total Capital Investment = ($823,430 / 5.5%) = $14,971,455

	Dist.	Calc. $
Land	3.3%	$ 494,058
Buildings	49.5%	$ 7,410,870
Equipment	47.2%	$ 7,066,527
FCCOM Employed	100.0%	$14,971,455

Evaluate based on the below
DFARS defined range:

Profit Range	
Land	N/A
Buildings	N/A
Equipment	10-25%

DOD Negotiation Method

WEIGHTED GUIDELINES PROFIT FACTORS					
ITEM	CONTRACTOR RISK FACTORS	ASSIGNED WEIGHTING	ASSIGNED VALUE	BASE (ITEM 20)	PROFIT OBJECTIVE
21.	TECHNICAL	55.00%	11.00%		
22.	MANAGEMENT/COST CONTROL	45.00%	5.00%		
23.	RESERVED				
24.	PERFORMANCE RISK (COMPOSITE)		8.30%	$ 58,064,871	$ 4,819,384
25.	CONTRACT TYPE RISK		4%	$ 58,064,871	$ 2,322,595
26.	WORKING CAPITAL	COSTS FINANCED	LENGTH FACTOR	INTEREST RATE	
		$ 11,612,974	1.4	5.50%	$ 894,199
	CONTRACTOR FACILITIES CAPITAL EMPLOYED		ASSIGNED VALUE	AMOUNT	
27.	LAND			$0	
28.	BUILDINGS			$0	
29.	EQUIPMENT		22.50%	$ 7,066,527	$ 1,589,968
	COST EFFICIENCY			BASE (ITEM 20)	
29A.	COST EFFICIENCY FACTOR		2.00%	$ 58,064,871	$ 1,161,297
30.				TOTAL PROFIT OBJECTIVE	$ 10,787,444

0% - 4% To Reward Contractor's Cost Reduction Efforts

DoD Negotiation Method

		NEGOTIATED SUMMARY		
		PROPOSED	OBJECTIVE	NEGOTIATED
31.	TOTAL COSTS	$ 58,064,871		
32.	FACILITIES CAPITAL COST OF MONEY *(DCAA Form 1861)*	$ 823,430		
33.	PROFIT	$ 10,787,444		
33A.	PROFIT PERCENTAGE *(Line 33 divided by 31)*	18.6%		
34.	TOTAL PRICE *(Line 31 + 32 + 33)*	$ 69,675,745		
35.	MARKUP RATE *(Line 32 + 33 divided by 31)*	20.0%		

PROFIT + FCCOM:
$11,610,874

DIVIDED BY COST :
$58,064,871

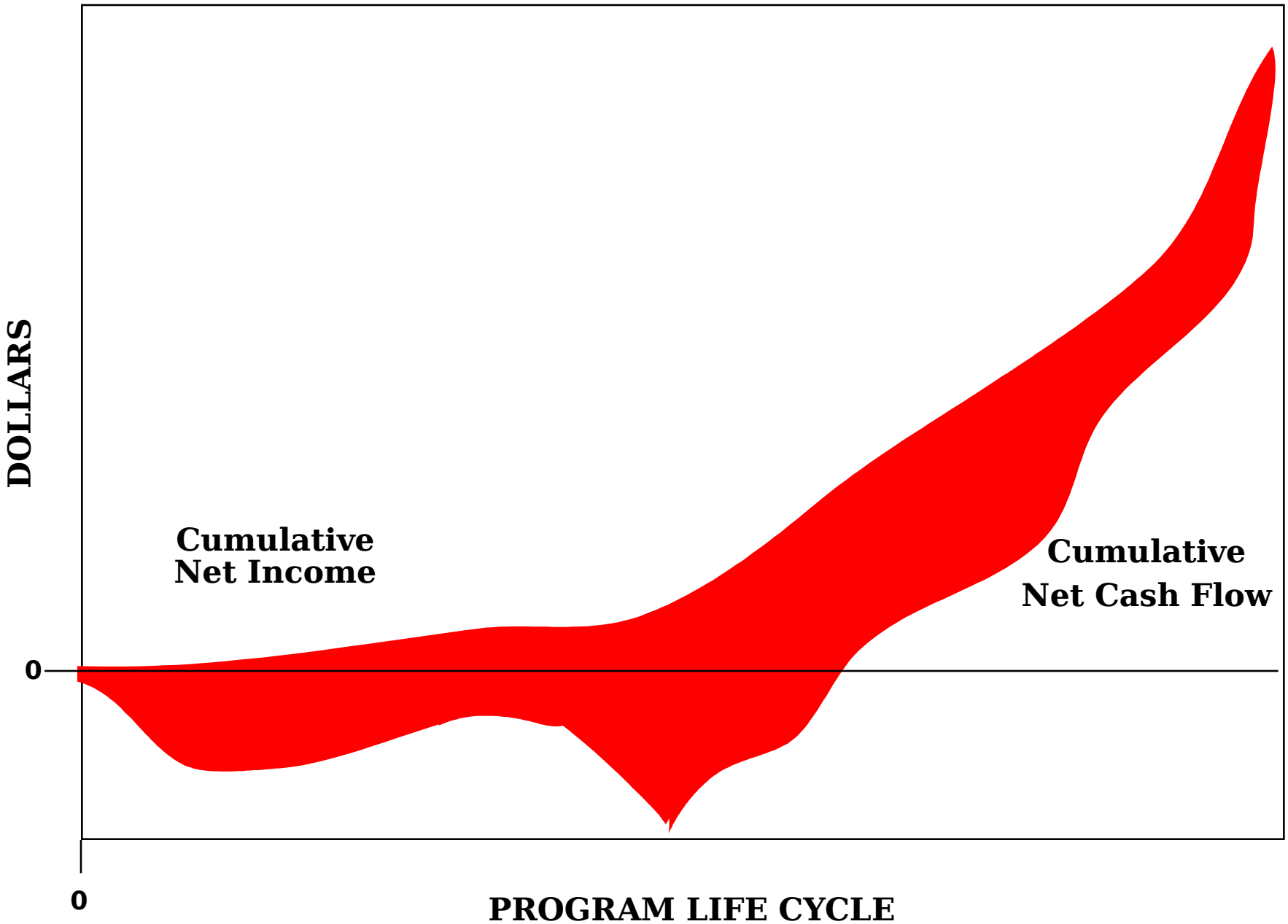
RETURN ON COST %:

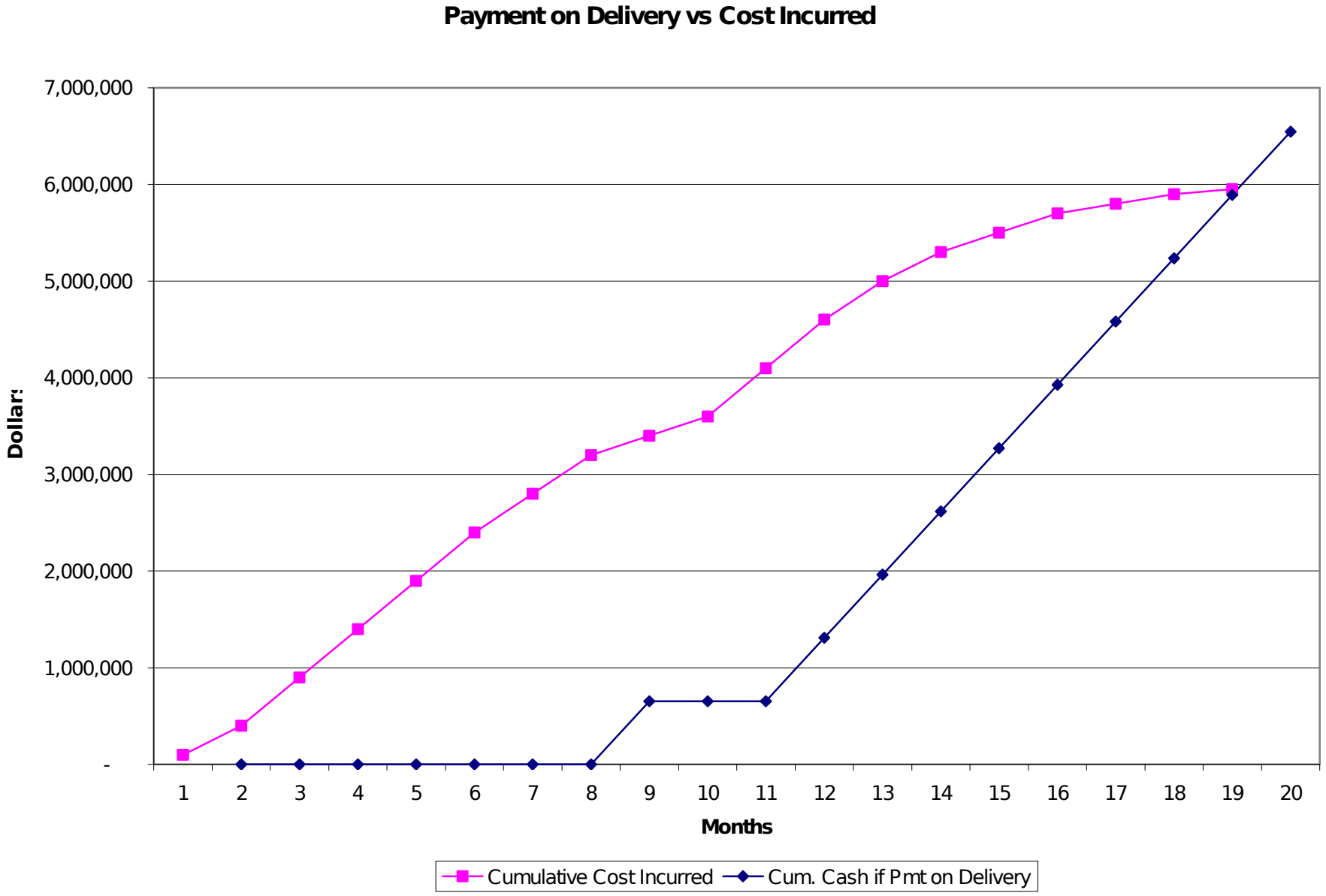
20.0%

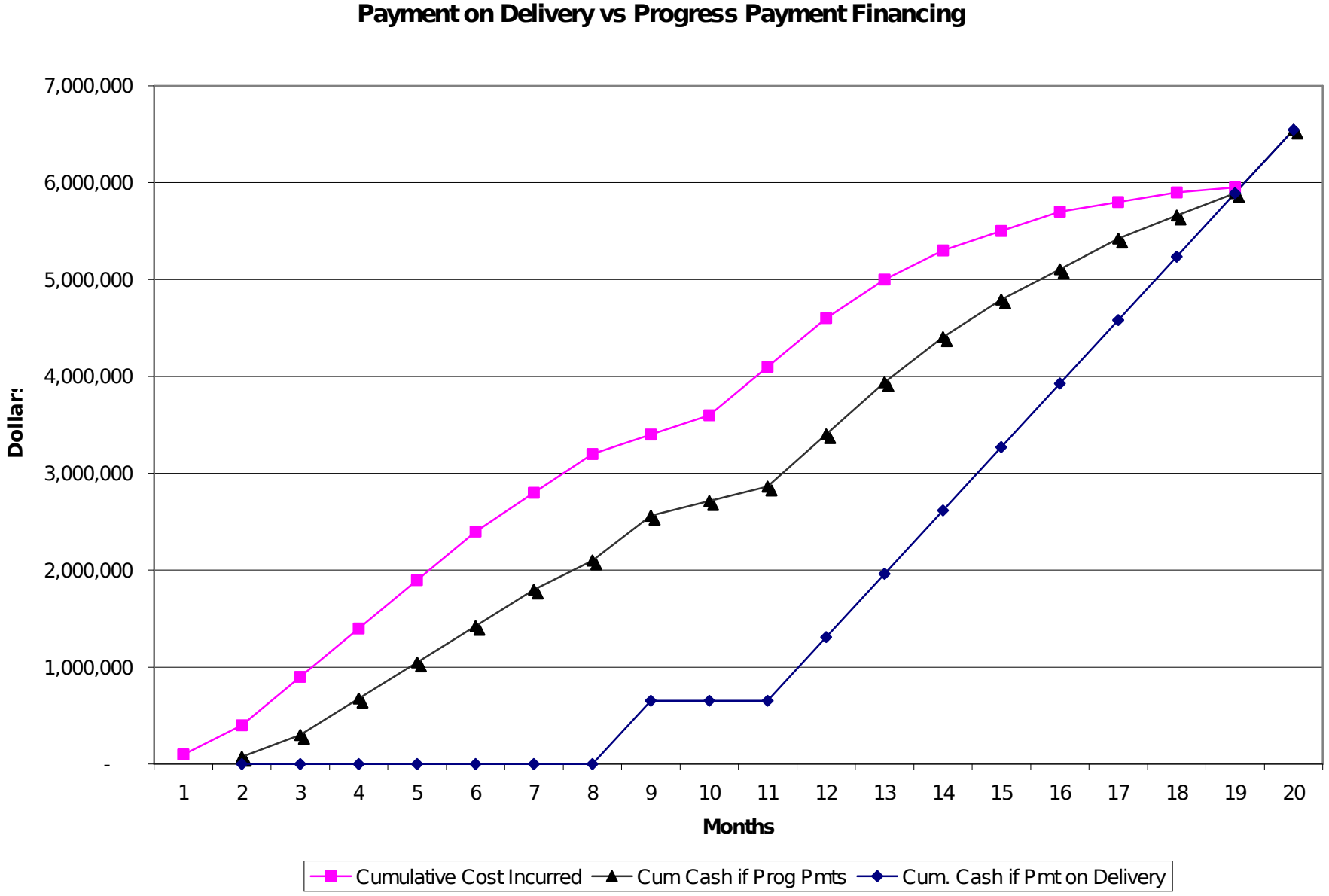
Profit Summary

- DoD uses profit to encourage and reward contractor behavior
  - Must provide earnings commensurate with risk, investment and technology employed
- Significant profit changes
  - Addition of new technology incentive range
  - Adds G&A to cost base (includes IR&D)
  - Decreases facilities capital profit
  - Adds cost efficiency factor

Cash Flow versus Profit




Payment on Delivery vs Cost Incurred
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
-
Dollars
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Months
Cumulative Cost Incurred
Cum. Cash if Pmt on Delivery


Payment on Delivery vs Progress Payment Financing
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
-
Dollars
1
2
3
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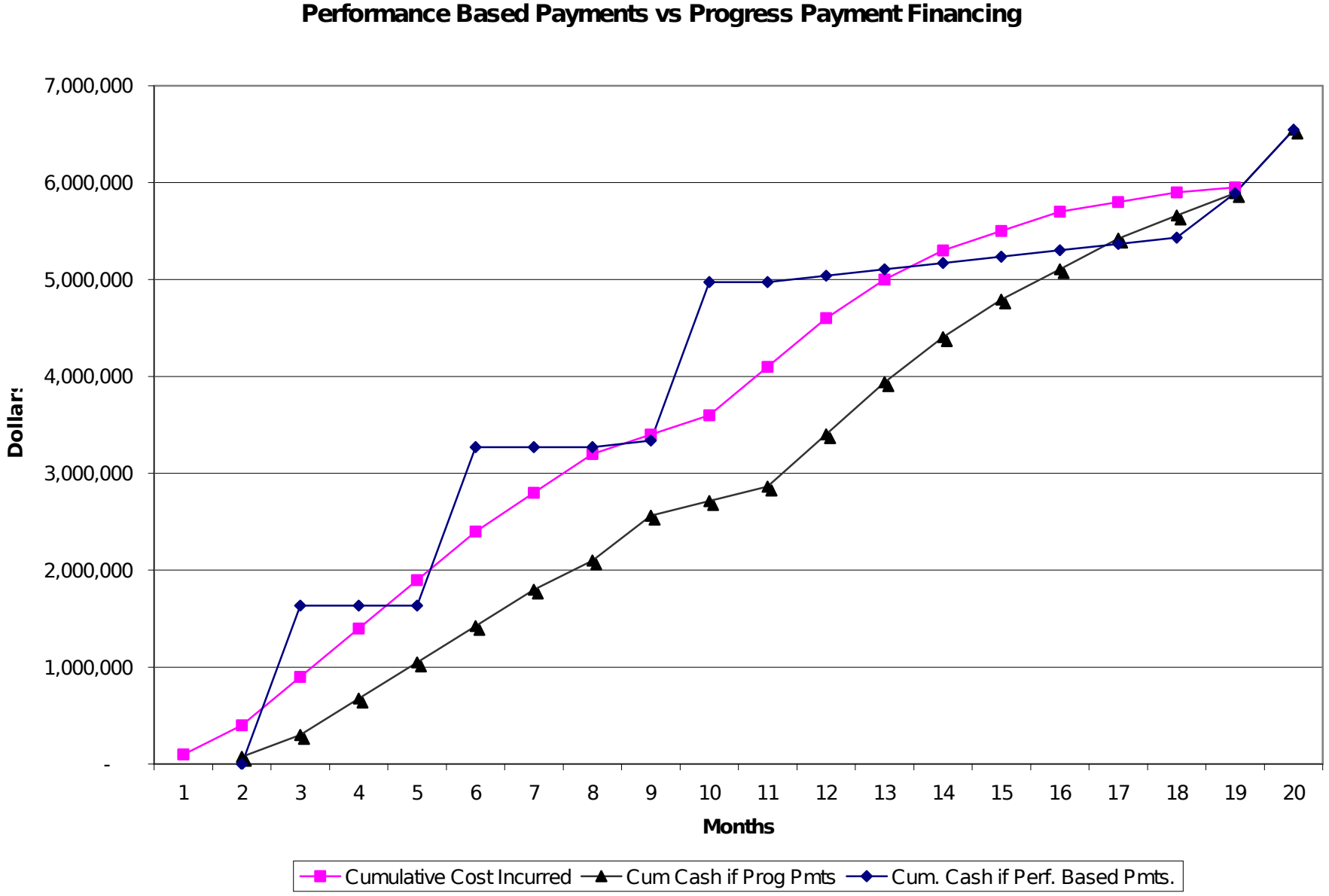
18
19
20
Months
Cumulative Cost Incurred
Cum Cash if Prog Pmts
Cum. Cash if Pmt on Delivery


Performance Based Payments vs Progress Payment Financing
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5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
-
Dollars
1
2
3
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5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Months
Cumulative Cost Incurred
Cum Cash if Prog Pmts
Cum. Cash if Perf. Based Pmts.

Advantages of Performance Based Payments

- Enhanced technical and schedule focus
- Broadening contractor participation
- Reinforcing role of program managers and integrated team members
- Increasing contractor cash flow
- Linking payment to performance

Couple of Senior DOD Mgmt Concerns

- Capping of overhead rates
- Independent research and development